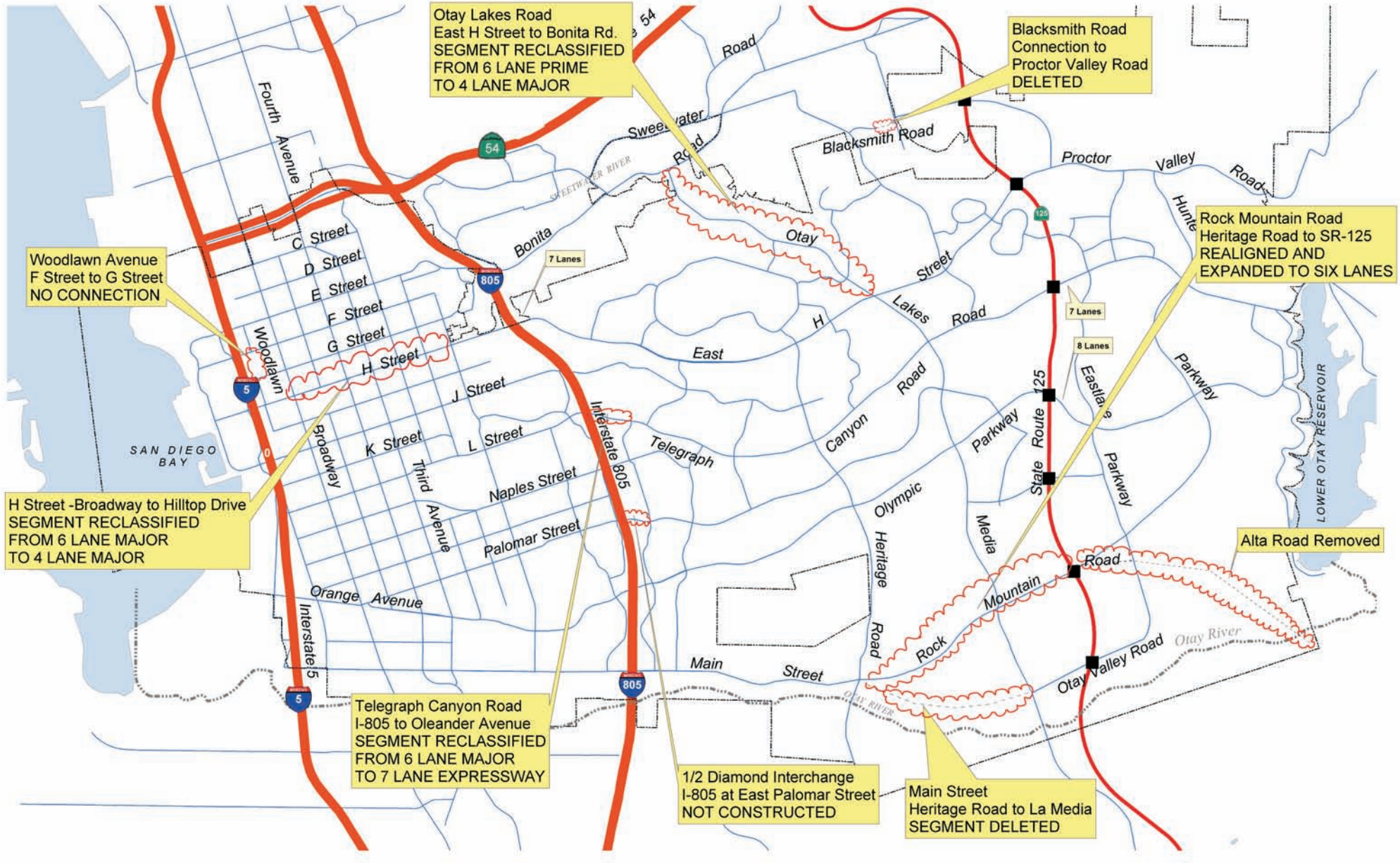

P:\Projects\GPCirculation\GP Roadway Network Changes.mxd - December 22, 2004
LUTE FIGURE N/A--KHA FIG 1.2-1--RECON FIG 5.10-1

Roadway Network Changes

CITY OF CHULA VISTA GENERAL PLAN UPDATE

FISCAL IMPACT ANALYSIS OF THE GENERAL PLAN UPDATE

EXECUTIVE SUMMARY

(Staff Report Attachment 10)

ERA

Economics Research Associates

Fiscal Impact Analysis of the General Plan Update

Chula Vista, California

Prepared for

City of Chula Vista

Submitted by

Economics Research Associates

January 2005

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ERA

Executive Summary

Economics Research Associates (ERA) was retained by the City of Chula Vista (City) to prepare a fiscal model to be used during the GPU effort. ERA was also asked to perform numerous analyses of the existing and proposed General Plan alternatives through the entire planning process. The primary components of the task were to:

- Formulate an appropriate fiscal modeling methodology for the GPU process
- Analyze the fiscal impact of incremental growth of the existing General Plan
- Analyze fiscal impacts of proposed General Plan alternatives
- Analyze the net fiscal impact of the preferred General Plan alternative
- Perform a risk analysis of the scenarios using a number of stress and sensitivity tests, and present probable ranges of outcome

This project has spanned over an extended period of time, following the rest of the GPU effort. ERA and a preliminary review team comprised of staff from the City's Budget and Analysis department met in September, 2003 to discuss the modeling methodology and initial findings. ERA then presented the basic modeling methodology and its outcomes to the City's General Plan Management Team (GPMT) in November, 2003. These 'working review' sessions led to the exchange of a number of initial refinements to the model. These refinements required the input of certain additional or alternative datasets as well as some modifications to the modeling methodology, which. ERA provided an updated model and an analysis of the existing General Plan in February 2004. As the GPU process proceeded, ERA analyzed a number of alternative scenarios between June and August of 2004. We finalized the model and analyzed the preferred alternative between September and November of 2004, and all of the findings were presented to the GPMT in November 2005. With a few more refinements in the City's preferred alternative the final round of analysis was done in December 2004.

Analysis Framework

The fiscal impact model is set up to calculate the net incremental annual fiscal cost or revenue to the City of Chula Vista's General Fund that can be attributed to incremental growth under each of the General Plan alternatives. Net impacts are given by subtracting net costs of providing services from net discretionary revenues generated at a given year. Note that the fiscal impact output always represents a snapshot in time. This could be a snapshot of annual impacts at buildout or at any chosen point in time. This temporal layer of fiscal analysis is an important factor in interpreting results.

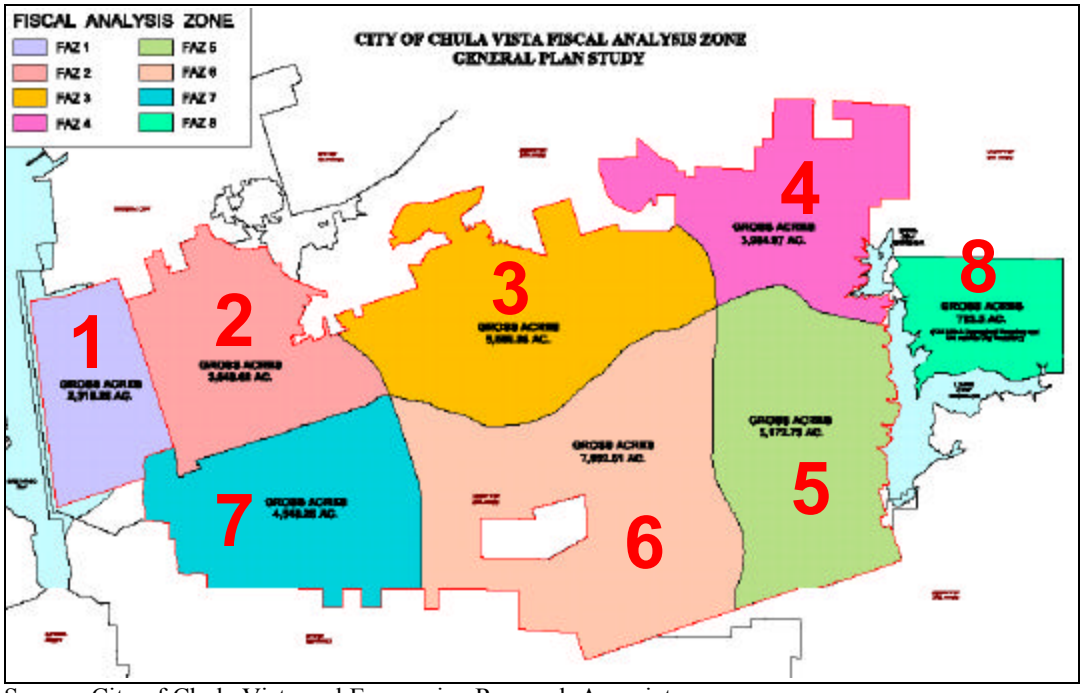
Fiscal Analysis Zones

In order to accurately model cost of service provision for key service providing City agencies (like Police and Fire), ERA divided the City into a number of broad service areas referred to as 'Fiscal Analysis Zones' or FAZs. The FAZ approach allows us to model impacts of future development based on spatial distribution of service needs (existing and

future) resulting from land use distribution, density, and incremental cost of maintaining uniform service standards.

Keeping the above issues in mind, ERA divided the City into seven FAZs, that best reflect uniqueness in terms of physical boundaries, land use, and socio-demographics. The geographic extents of the FAZs are presented in the figure below. In addition to the seven FAZs, at the City's request, ERA has considered an eighth FAZ that includes 700 acres of potential annexation area to the east of the City. This FAZ 8 is within the City's existing Planning Area, but is not within the City's existing jurisdiction (the City does not provide any services or receives any revenues from this area as of now).

Chula Vista – Fiscal Analysis Zones (FAZ)



Source: City of Chula Vista and Economics Research Associates

Analysis Timeframe

ERA's base analysis examines fiscal impacts over a 25-year time horizon between now and 2030. It is important not to interpret this time frame as the 'buildout' period. Buildout may or may not occur within this time frame depending on a number of market variables. Based on ERA's current assessment of market conditions it is unlikely that all land uses will be built out within this period considering the development capacity of the existing General Plan or the preferred alternative. While all (pr most) of the residential land is expected to be developed during this time, it is likely that some of the non-residential uses, especially research and limited industrial uses will take a longer time to get absorbed.

One of the reasons for selecting this 25-year time frame is the ability to project absorption and other market assumptions within realistic parameters based on available regional trends and other data. All of SANDAG's regional and local data, which provide a sound benchmark for many assumptions in this analysis, are also projected over the 2030 time frame. In addition, the General Plan is likely to be updated again between now and 2030, hence a very extended analysis time frame that takes into account market parameters like absorption, appreciation and inflation, will not only yield results that are highly speculative, but will be so far out in the future that it will not have any significant relevance to the current process.

Risk Analysis

Variations in input variables, especially ones that are dependent on market and economic conditions can yield a wide range of impact values over an extended period of time. Though professional experience, available projections, and data benchmarks allow us to speculate on most of these variables, it is almost certain that none of these will be static over a 25 year period. Hence it is important to conduct a series of stress tests on the model with sound assumptions of variation in input variable ranges in order to gauge the resultant variation in net impacts.

Using a complex modeling format that utilizes close to a hundred input variable can often be very sensitive to a few key variables and may yield a wide range of results depending on the variation within these key variables. It is important to understand and identify these key variables through a series of sensitivity tests.

ERA used the @Risk 4.5 software to conduct a sensitivity analysis of each General Pan scenario. @Risk is an analysis software that works on the MS-Excel platform and allows users to select a set of output variables and define a range of distribution for any number of precedent input variables. The software then conducts a series of random simulations within the defined parameters and can provide a number of risk related results. For the purpose of this analysis ERA utilized the software's built in sensitivity analysis to determine the distribution of net annual fiscal impacts and identify the most significant variables driving the output.

Existing General Plan Fiscal Impacts

2030 Impacts

Net Annual Impacts from the Existing General Plan (2030)

Net Impact Within the Current Jursdiction at 2030 (excluding FAZ 8)	
Incremental Annual Fiscal Operating Expenditures (Less Future Annex)	$26,923,532
Incremental Annual Discretionary Revenues (Less Future Annex)	$35,697,323
NET ANNUAL FISCAL REVENUE/(COST) - Current Jursdiction	**$8,773,791**

Net Impact From the Future Annex (FAZ 8) at 2030	
Incremental Annual Fiscal Operating Expenditures	$2,137,248
Incremental Annual Discretionary Revenues	$3,803,409
NET ANNUAL FISCAL REVENUE/(COST) - Future Annex	**$1,666,162**

NET ANNUAL IMPACT FROM THE OVERALL GENERAL PLAN AREA (2030)	**$10,439,953**

Source: Economics Research Associates

Net annual incremental fiscal impacts at 2030 from the existing General Plan are presented above. As shown in the Table, the combined net impact from the current jurisdiction and FAZ 8 is estimated to be $10.44 million at 2030. Of this total, $8.77 million is attributed to incremental growth in the current jurisdiction, and the remaining $1.67 million is attributed to development in FAZ 8.

Buildout Impacts (2050)

ERA also looked at an extended post buildout scenario, assuming all uses are fully developed by 2050. A mid growth scenario assuming 0.5 percent real appreciation[1] of property values and keeping all other assumptions constant yields the net impacts summarized below. Net annual incremental fiscal impact from buildout of the current jurisdiction is estimated to be $10.74 million. Annual incremental impact from FAZ 8 is estimated to be $1.78 million, resulting in a total annual impact of $12.52 million.

Net Fiscal Impacts at Buildout (2050) of the Existing General Plan

Net Impact Within the Current Jurisdiction at 2030 (excluding FAZ 8)	
Incremental Annual Fiscal Operating Expenditures (Less Future Annex)	$30,244,241
Incremental Annual Discretionary Revenues (Less Future Annex)	$40,989,826
NET ANNUAL FISCAL REVENUE/(COST) - Current Jurisdiction	**$10,745,585**

Net Impact From the Future Annex (FAZ 8) at 2030	
Incremental Annual Fiscal Operating Expenditures	$2,137,248
Incremental Annual Discretionary Revenues	$3,916,713
NET ANNUAL FISCAL REVENUE/(COST) - Future Annex	**$1,779,466**

NET ANNUAL IMPACT FROM THE OVERALL GENERAL PLAN AREA (2030)	**$12,525,051**

Source: Economics Research Associates

General Plan Preferred Alternative Fiscal Impacts

2030 Impacts

Net Annual Impacts from the Preferred General Plan Alternative (2030)

Net Impact Within the Current Jurisdiction at 2030 (excluding FAZ 8)	
Incremental Annual Fiscal Operating Expenditures (Less Future Annex)	$37,083,831
Incremental Annual Discretionary Revenues (Less Future Annex)	$41,759,775
NET ANNUAL FISCAL REVENUE/(COST) - Current Jurisdiction	**$4,675,944**

Net Impact From the Future Annex (FAZ 8) at 2030	
Incremental Annual Fiscal Operating Expenditures	$1,731,957
Incremental Annual Discretionary Revenues	$3,366,770
NET ANNUAL FISCAL REVENUE/(COST) - Future Annex	**$1,634,813**

NET ANNUAL IMPACT FROM THE OVERALL GENERAL PLAN AREA (2030)	**$6,310,757**

Source: Economics Research Associates

Net annual incremental fiscal impacts at 2030 are presented above. The combined net annual impact from incremental growth in the current jurisdiction and FAZ 8 is estimated to be $6.31 million at 2030. Of this total, $4.68 million is attributed to incremental growth

[1] ERA assumes real appreciation varies between zero percent and one percent annually.

in the current jurisdiction, and $1.63 million is attributed to development in FAZ 8. Note that this base analysis for the preferred alternative does not take into account any real appreciation of properties. Property taxes are calculated using an economic inflation of three percent annually and final results are inflation adjusted to reflect 2004 dollars.

Buildout Impacts (2050)

ERA analyzed an extended post buildout scenario, assuming that the preferred alternative is completely built out by 2050. Note that this analysis called for aggressive absorption assumptions for commercial office and industrial land after 2030, assuming that Chula Vista will be able to overcome most regional competition for these uses as regional land becomes scarce. ERA also assumed a midline real property appreciation of 0.5 percent. A summary of findings of the 2050 buildout scenario is presented below. As shown in the table, revenue generation is expected to continue to outpace fiscal costs even at buildout, resulting in a net positive impact of $10,96 million annually for the total planning area. Net annual incremental fiscal impact from buildout of the current jurisdiction is estimated to be $8.90 million. Annual incremental impact from FAZ 8 is estimated to be $2.05 million.

Net Fiscal Impacts at Buildout (2050) of the Preferred General Plan Alternative

Net Impact Within the Current Jurisdiction at 2030 (excluding FAZ 8)	
Incremental Annual Fiscal Operating Expenditures (Less Future Annex)	$47,825,655
Incremental Annual Discretionary Revenues (Less Future Annex)	$56,731,015
NET ANNUAL FISCAL REVENUE/(COST) - Current Jurisdiction	**$8,905,360**

Net Impact From the Future Annex (FAZ 8) at 2030	
Incremental Annual Fiscal Operating Expenditures	$1,801,190
Incremental Annual Discretionary Revenues	$3,856,167
NET ANNUAL FISCAL REVENUE/(COST) - Future Annex	**$2,054,977**

NET ANNUAL IMPACT FROM THE OVERALL GENERAL PLAN AREA (2030)	**$10,960,336**

Source: Economics Research Associates

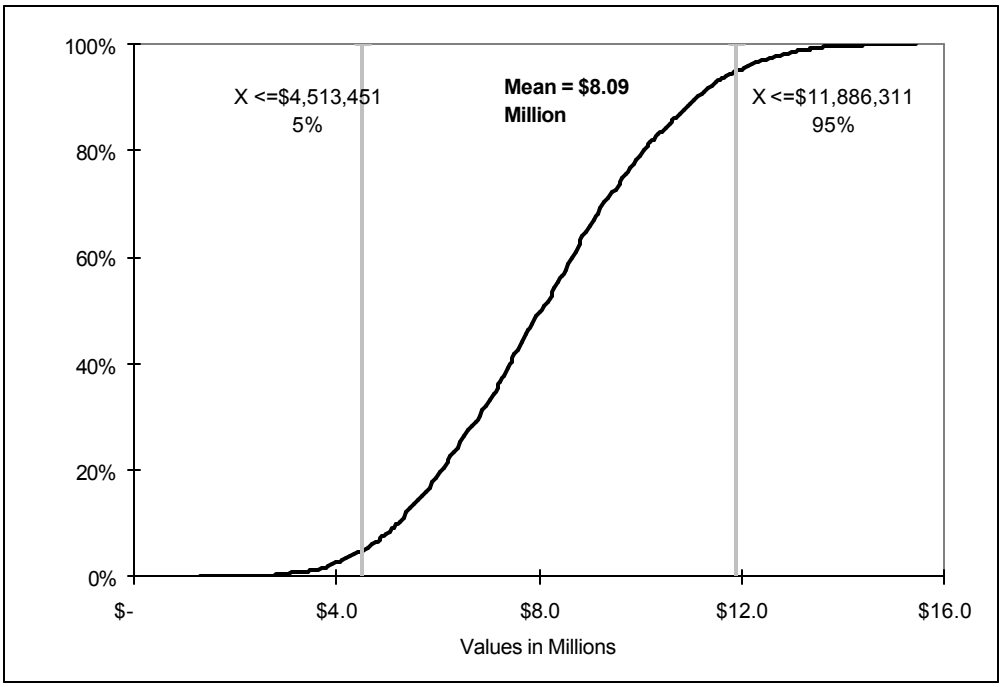
Risk Analysis of the Preferred General Plan Alternative

ERA used @Risk to analyze the probability distribution of net fiscal impacts with defined variations in 60 key input variables in the model. The list of input variables and their distributions are shown in table A- 3.1 in Appendix 3. ERA also tested the sensitivity of these variables in affecting the model output (net fiscal impacts) using the sensitivity analysis tool built within at risk. We ran 10,000 iterations of the model within the defined ranges. The results of the risk analysis of impacts are described below. Note that the analysis tested the total fiscal impacts at 2030 including both the current jurisdiction as well as the future annexation area, FAZ 8.

Probability Distribution

The Figure below plots the distribution of net fiscal impacts under the given ranges of variables. As shown in the figure, the net fiscal impacts are always positive under the given stress ranges of input variables. 90 percent of the iterations yielded a net impact value between $4.51 million and $11.89 million, with a mean value of $8.09 million.

Net Impact Distribution Plot under the Preferred General Plan (2030)



Source: Economics Research Associates

Sensitivity Analysis

@Risk tests the sensitivity of all defined input variables relative to the output by carrying out a series of regression analyses and deriving the sign and magnitude of corresponding (Std b) regression coefficients. This allows us to identify the variables that most significantly affect the net impacts. It also allows us to determine whether the input variables have a direct or an inverse relationship with the output.

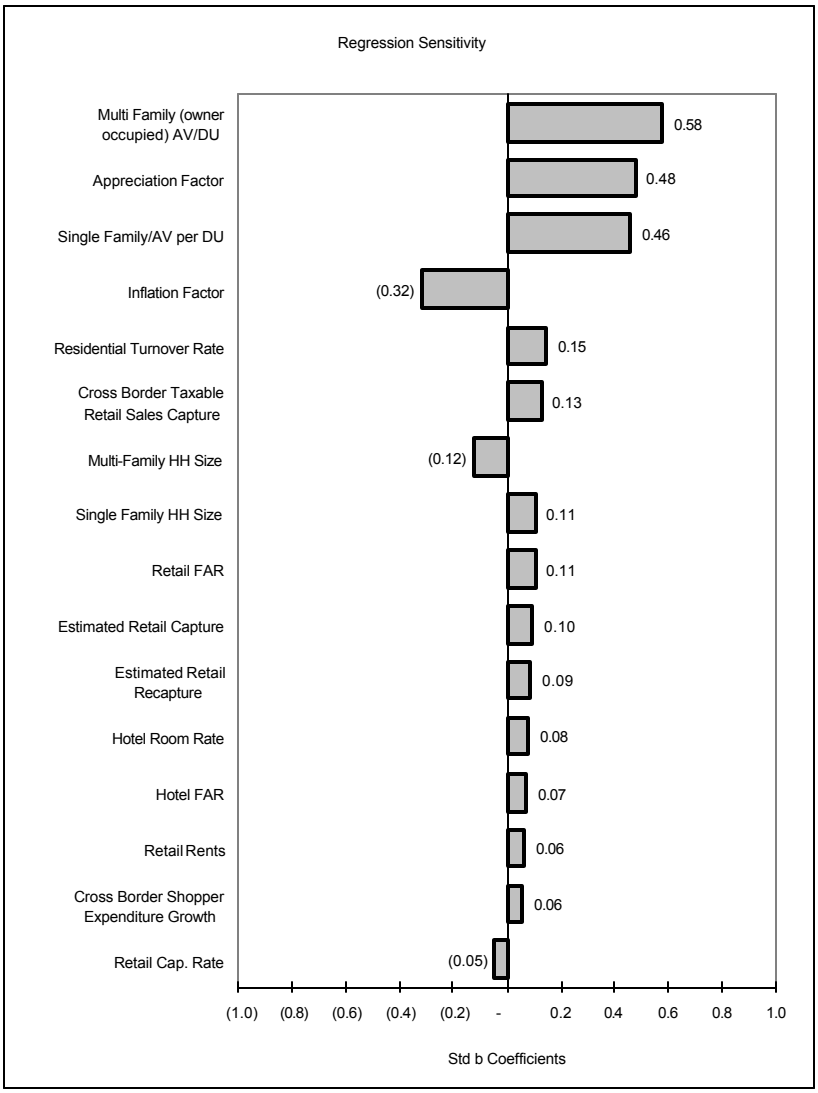
The Figure below presents the most sensitive input variables and the nature of their relationship to the output. As shown in the graph, the five most sensitive variables include:

- Multi family home values for owner occupied units
- Annual real appreciation factor of AV
- Single family home value
- Economic inflation

- Residential turnover rate

The impacts are also inversely proportional to multi-family household sizes. The above sensitivities reveal that the primary driver of fiscal revenues and costs is the high-density residential component in the plan. Sustained growth in home values, adequate turnovers that capture real appreciation, and modest economic inflation will be important drivers of fiscal revenues. However, household occupancies that significantly exceed current levels, especially in the case of multi-family units may result in higher fiscal costs. The capacity to capture retail sales from incremental households and recapture currently leaking retail also appears to be an important driver of fiscal revenues.

Sensitivity of Variables with respect to the Preferred General Plan Impacts



Source: Economics Research Associates

MSCP AMENDMENT

GPU STAFF REPORT ATTACHMENT 11